Increasing Electric Power for Development in the Southern Philippines

Location: Davao City, on the southern island of Mindanao
Type: Utility load-shedding system
Size: 190,000 household customers
Funding: Total: US$50,000
Private: US$50,000
Objective: To increase availability of uninterrupted electric supply.
Duration: 1999–2001
Scale: Urban

Summary

In this project, a private United States (US) electric utility (American Electric Power [AEP]) partnered with the Davao Light and Power Co., Inc. (DLPC) to implement an "under-frequency load shedding system." As a result, DLPC can now section off portions of its power grid to increase availability of uninterrupted electric supply, thus allowing industrial and commercial enterprises to continue production operations without interruption. The project has also reduced costs to all classes of consumers because they no longer need to purchase and run backup electric generators.

In-Country Principles That Attracted Nondonor Financing

- Capacity building and informed decision making
- Institution building and informed decision making

A key factor that helped attract private financing was the ability of the utility to operate under standard commercial practices. Activities that helped bring the utility in line with standard commercial practices have included a management team independent of the government, and hiring/developing staff with appropriate skills matched to the job. Also important were the increased awareness, knowledge, and skills of sector professionals in technical areas such as commercial business practices, competitive energy market operation, and management of private-sector involvement. This increased awareness has been accomplished via study tours, dissemination of best practices, and stakeholder partnerships and exchanges.

Also important was a successful energy restructuring, characterized by commercialization and development of the existing dominant utilities and investment and privatization.

Financing

Total project investment was US$50,000. All of this was for capital costs and all was provided by the privately held DLPC, the third largest electric power distribution company in the Philippines.

The Project

Systemwide power blackouts plagued 190,000 household consumers of DLPC, which does not generate its own power, but buys it from providers.

Under the United States Agency for International Development (USAID)-funded Philippines Energy Partnership Program (PEPP), AEP — a private US electric utility based in Ohio — partnered with DLPC and demonstrated how to institute an under-frequency load shedding system. At no cost to DLPC or USAID, AEP transferred its experience in sectioning off portions of its power grid to ensure power quality and reliability. Specifically, AEP showed its Philippine partner how to switch a cement plant off of its electrical system during the frequent occasions when power quality declined below acceptable levels.

This load-shedding ability enables DLPC to keep its remaining customers from experiencing total blackouts.

Technical Data

Under-frequency relays were used to limit power outages to small sections of the city, while maintaining power in the rest of the city.

Performance Data

The project has limited blackouts for 190,000 households and has resulted in savings of about US$3,000,000 per year for industrial, commercial, and residential users. The reliable supply of electricity has improved health and education in the city and has also enhanced industrial production and commercial sales.

Participants and Roles

USAID funds the PEPP, which helped link the US utility, AEP, with its Philippine Partner, DLPC. DLPC financed the capital costs of the project and AEP transferred its experience to DLPC in sectioning off portions of the power grid to ensure power quality and reliability. The US Energy Association (USAE) administers the PEPP.

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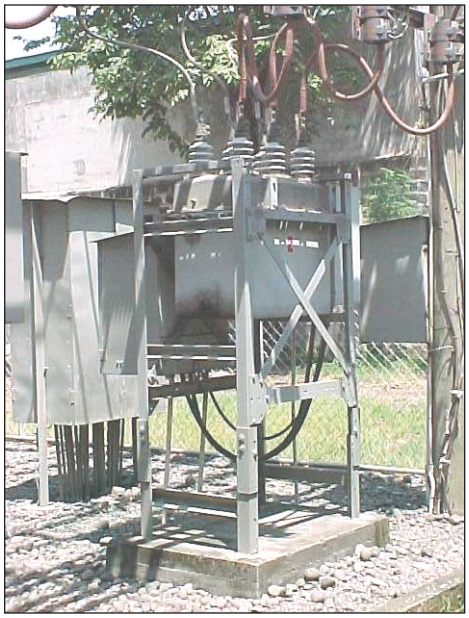

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